

REMARKS

The Office Action indicated that the subject matter of Claims 15 and 16 would be allowed if rewritten in independent form. Applicant requests that this allowed subject matter be held in abeyance pending a review of the proposed amended claims and the following remarks.

The present invention permits a user operator, for example with a compact hand held instrument to relieve eye strain that can occur, for example with an extended use of a computer screen with the operator's eyes fixed at a set focal plane. This can become particularly acute when a person is either typing or reading text for an extended period of time.

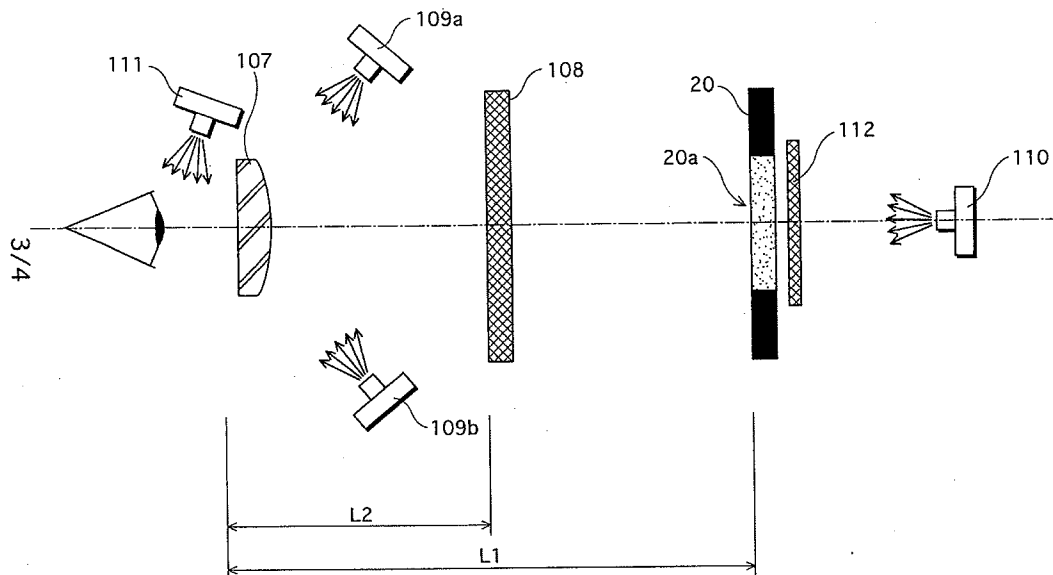
Thus, the present invention provides a consumer usable device that in effect exercises the eye by inducing a sequence of self induced mydriasis and miosis. Our user operated instrument is designed for cost effectiveness, easy portability and self use by a user.

Since we are trying to relieve eye fatigue and strain, our device is not a medical diagnostic instrument, nor is it intended to perform that function.

Rather, our instrument is provided with controls on the exterior of a compact body that enables a user to view through respective right and left view finders an image or plurality of images presented through an insertion of an optotype chart that carries a film image that can be adjustably positioned on the visual axis of the view finder system. The user looks into our fatigue recovering facilitating apparatus to alleviate the strain in ciliary muscles and the user can focus on a desirable image of a user controlled member.

Additionally, by providing an auxiliary light 111 on an exterior of the housing body, a user's pupil can be observed in a visual reflection from a half mirror that is positioned orthogonal to the visual axis, as shown, for example in Figure 3:

FIG.3



A backlight 110 can illuminate a light scattering board 112 to visualize the image on film 20a. A half mirror 108 permits the user to visualize the display image through the mirror 108 when the display image is illuminated. The user can further review the actual status of his/her pupil by a reflection from the orthogonally positioned half mirror 108 of the light from element 111.

Stimulus light can be provided by LEDs 109a, 109b and even complemented with an LED light source 110. The ocular lens 107 provides basically parallel rays from an infinity image position to also assist easing the tension of the ciliary muscles. For example, a flashing operation of the light source 110 can be repeated for a predetermined length of time and then temporarily switched off. The user can observe the actual impact on the pupillary dimensions of his eyes and a flashing operation of LED light sources 109a and 109b can be activated. This can have the user's pupil stimulated into a state of miosis. By timing the light flashes, the subject

observes the image of the pupillary state which can be caused to cycle between a state of mydriasis and miosis to relieve fatigue.

Since the user also has the capacity to observe his own eye pupils from the visible light reflected from his/her eyes from the light source 111 on the exterior of the housing body, the user is thereby encouraged to go through the entire remedial cycle while visualizing the impact on his eyes.

The Office Action contended that *Kandel et al.* (U.S. Patent Publication 2004/0105075) completely anticipated the subject matter of Claims 1-3, 5-9 and 11-12.

Additionally, the Office Action contended that the subject matter of Claims 4 and 10 would be obvious in view of the *Kandel et al.* disclosure, with a contention that it would simply be obvious to a person of ordinary skill in the art to set specific periods of pulse light without citing a specific reference.

The *Kandel et al.* reference is basically a medical instrument for detecting ocular dysfunctions and particularly for detecting an ocular dysfunction with optic neuropathy such as the glaucoma group of diseases. In this regard, the user's individual eyes can be isolated with one eye exposed to a series of flashes and the resulting pupillary reflexes are measured and compared with a response from the other eye.

As shown in Figures 1a and 1b, a pair of eye scopes are provided with respective inclined cold mirrors 18A, 18B. A plurality of different color light sources are provided within a reflecting spherical body to direct light through polarizing screens 28A and 28B to vary the position or location of the chromatically flashes reflected from the cold mirror to the subject's eyes.

The purpose of these light flashes is to determine the impact on the eye by recording a dimension of the pupil as a result of an infrared source of light 41A, 41B that can penetrate through and be focused onto a camera or other recording device such as a CCD 36A, 36B. See Paragraph 0040.

Thus, this medical instrument basically works on a pupil image produced from infrared light that reaches the measuring or recording camera at the other end of the eye scope. As can be determined, cold mirrors 18A, 18B are disclosed at approximately a 45 degree angle to direct the chromatically varying flashing light to the subject's respective eyes. The exterior infrared light sources 41A, 41B is designed to measure the pupil of the eye, and can pass through the respective cold mirrors to the recording instrument while reflecting the visible light.

It should be noted, as described in Paragraph 0037, a fixation point 40A, 40B which is simply a spot of light, can be provided with a request that the patient attempt to maintain focusing on this spot of light.

Needless to say, there is no teaching of an image display subunit including a light source configured to provide a display image on a visual axis to the user. This visual image can be further changed or altered by the user through the user controls on the exterior of the housing body. Thus, the image of the image display unit can be moved under the control of the user.

Additionally, there is no teaching of a reflecting subunit configured to form a visible image of a pupil of the user's eye on the visual axis. This occurs when the display subunit light source is not activated to provide the display image.

Kandel et al. teaches a user or patient, that is being subject to a medical diagnostic to be passive and certainly not move images or have access to controls for purposes of relieving fatigue or strain.

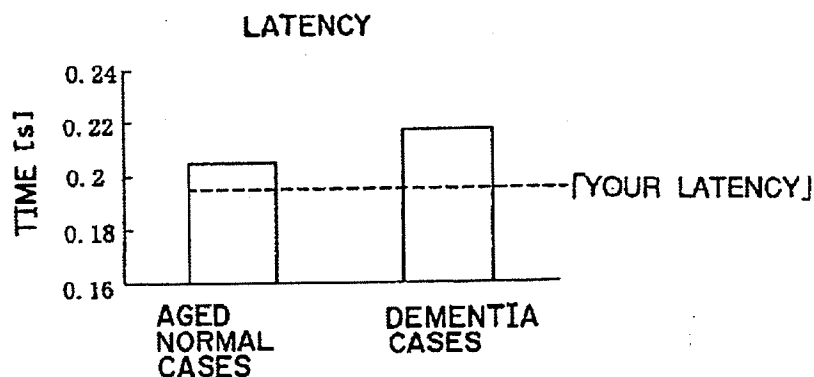
As can be determined, the *Kandel et al.* reference teaches a remote control panel 50 connected, for example to the recording members 36A and 36B and further teaches an overlay board 26 for producing an electronic mask or overlay that will permit just an image of the pupil to be recorded, as noted in Paragraph 0044, Lines 8-19.

Thus, the *Kandel et al.* reference teaches a medical instrument for recording variations in pupillary reflexes between eyes and then comparing them by a series of flashes of red, green, blue and yellow. See Paragraph 0049 whereby exposing both of the eyes to the same series of flashes provides values of a Relative Afferent Pupillary Defects which can be measured and compared to determine the presence of an ocular dysfunction. See the teachings in Paragraph 0050.

The Office Action further rejected Claims 13 and 14 over the teachings of the *Kandel et al.* reference when further taken in view of *Fukushima et al.* (U.S. Patent No. 6,669,651). The Office Action noted that the *Kandel et al.* reference did not teach an image display subunit provided on an extension of the imaginary line that connects the eyeball of the subject and the reflecting subunit.

The *Fukushima et al.* reference was directed again to a medical instrument to permit a non-invasive brain function examination by determining a characteristic of the pupil and then comparing the characteristic with a look up table. This permits a determination of possible dementia relative to pupil diameter when subject to various stimuli as set forth in Figure 9.

Fig.9



Thus, the Office Action contends that combining the disclosure of the *Kandel et al.* reference to determine ocular dysfunction, that is diseases of the eye, would encourage a person to integrate features of the *Fukushima et al.* reference which wishes to have an early indication of dementia through a non-invasive brain examination by comparing pupil dimensions.

The present invention provides a user friendly aid to relieve stress and fatigue that are a byproduct of the modern office environment with computer screens.

It is respectfully submitted that, particularly in view of the current claims, a person of ordinary skill in the field would not combine these references in the manner asserted to render obvious our present invention, and even if hypothetically combined, they would still fail to provide the advantages of our present invention.

It is the Examiner's burden to establish *prima facie* obviousness. See *In re Rijckaert*, 9 F.3d 1531, 1532 (Fed. Cir. 1993) Obviousness requires a suggestion of all the elements in a claim (*CFMT, Inc. v. Yieldup Int'l Corp.*, 349 F.3d 1333, 1342 (Fed. Cir. 2003)) and "a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does." *KSR Int'l Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1741 (2007). Here, we find that the Examiner has not identified all the elements of claim 1, nor provided a

reason that would have prompted the skilled worker to have arranged them in the manner necessary to reach the claimed invention.

Ex parte Karoleen B. Alexander, No. 2007-2698, slip op. at 6 (B.P.A.I. Nov. 30, 2007)

As noted in the MPEP at §2143.02:

A rationale to support a conclusion that a claim would have been obvious is that all the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions, and the combination would have yielded nothing more than predictable results to one of ordinary skill in the art. *KSR International Co. v. Teleflex Inc.*, 550 U.S. ___, ___, 82 USPQ2d 1385, 1395 (2007); *Sakraida v. AG Pro, Inc.*, 425 U.S. 273, 282, 189 USPQ 449, 453 (1976); *Anderson's-Black Rock, Inc. v. Pavement Salvage Co.*, 396 U.S. 57, 62-63, 163 USPQ 673, 675 (1969); *Great Atlantic & P. Tea Co. v. Supermarket Equipment Corp.*, 340 U.S. 147, 152, 87 USPQ 303, 306 (1950). (underline added)

Our independent Claims 1 and 7 have been amended to define our optical reflecting surface to be a plane that is substantially orthogonal to the visual axis of the subject, thereby facilitating self monitoring and encouraging the user to use our device for an effective time period to relieve eye strain. This is done in a relatively inexpensive manner without increasing the cost of our product.

The Office Action had relied upon the cold half mirrors 18A and 18B of *Kandel et al.* as the reflecting surfaces. These reflecting surfaces, however, are for the purpose of accommodating a chromatic source of off axis lights while permitting an infrared image to pass through the cold mirrors for recording purposes. The infrared image of a subject pupil is not going to be visually apparent to the user. Even if visual light was substituted into this environment, it would not provide a reflection back to permit the user to visualize changes in his/her pupil shape resulting from our treatment to relieve the effects of eye strain.

Since each of our independent claims have been modified, we believe these claims and their dependent claims are now more than adequately patentable over the *Kandel et al.* reference, alone or in combination with the *Fukushima et al.* disclosure.

The new independent Claim 17 provides an alternative definition of our invention consistent with our above arguments and also consistent with the indication of allowable subject matter.

Applicant has presented in Claim 17 a fatigue recovery facilitating apparatus with a compact housing body and user switch controls on the exterior of the body. Additionally, we provide a display image on the visual axis with a user controlled member for moving the image, and a reflecting subunit configured to form a user visible image of the pupil on the same visual axis when the display sub light unit source is not activated to provide a display image.

Finally, our stimulus supplying subunit is configured to apply a light stimulus to induce a pupillary reflex in a user so that the user can use the display image to focus the user's eyes, and can also activate the stimulus supplying subunit to repeat mydriasis and miosis while enabling the user to observe periodically the effect of the stimulus directly in a visual image of the user's pupil on the same visual axis.

While it is appreciated that the utilization of the *KSR* standards on obviousness have become common in the U.S. Patent Office during examination, it is still necessary for an Examiner, who is attempting to provide a diligent effort to ensure that only patentable subject matter occurs, to step back from the zeal of the examination process and to appreciate that the Patent Examiner has to wear both hats of advocating a position relative to the prior art, while at the same time objectively rendering in a judge-like manner a decision on the patentability of the present claims. It is also important that the *KSR International* standards as utilized by the U.S.

Patent Office in attempting to combine elements of prior art, not change the respective prior art functions so that the resulting combination would yield nothing more than a predictable result.

Our recent discussion with Pinchus Laufer in the Office of Patent Legal Administration, who was involved in writing the Examination Guidelines for Determining Obviousness under 35 USC §103 in view of the Supreme Court decision in *KSR International Co. vs. Teleflex, Inc.* verified that the KSR decision still required a specific rationale that could not be based on hindsight for purportedly combining the elements in the prior art to meet an invention defined in the patent claims.

Mr. Laufer incorporated the following from the existing MPEP into the Guidelines.

As noted in the MPEP at §2143.02:

A rationale to support a conclusion that a claim would have been obvious is that all the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions, and the combination would have yielded nothing more than predictable results to one of ordinary skill in the art. *KSR International Co. v. Teleflex Inc.*, 550 U.S. ___, ___, 82 USPQ2d 1385, 1395 (2007); *Sakraida v. AG Pro, Inc.*, 425 U.S. 273, 282, 189 USPQ 449, 453 (1976); *Anderson's-Black Rock, Inc. v. Pavement Salvage Co.*, 396 U.S. 57, 62-63, 163 USPQ 673, 675 (1969); *Great Atlantic & P. Tea Co. v. Supermarket Equipment Corp.*, 340 U.S. 147, 152, 87 USPQ 303, 306 (1950). (underline added)

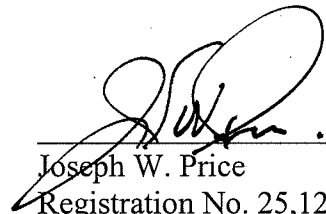
It is respectfully submitted that neither the *Kandel et al.* medical instrument for detecting ocular dysfunctions of the eye such as glaucoma nor the *Fukushima et al.* medical instrument for the purposes of determining dementia can be modified to replicate the advantages of the present invention in accordance with the requirements of *Graham v. John Deere*, 383 U.S. 1 (1966).

It is respectfully submitted that the application is now in condition for allowance and early notification of the same is requested.

If the Examiner believes a telephone interview will further the prosecution of this case,
the undersigned attorney can be contacted at the listed telephone number.

Very truly yours,

SNELL & WILMER L.L.P.

A handwritten signature in black ink, appearing to read "J. Price", is written over a horizontal line.

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